

5/45

Split

DART AEROSPACE LTD		Work Order:	24595-1
Description: Blade		Part Number:	D2741
04.03.03 10 UP			

Drawing: D2741 Rev. B2

Qty: 10/14

Step	Location	Procedure	By	Date	Qty
1	EXPEDITING	Issue Work Order	AA	05.10.18	10
2	METAL	Cut blanks 13.850" long +0.063" -0.000" Material: 4130 steel bar 0.50" x 3.00" Batch: M18768	SG	05.11.02	36
3	CNC CELL	Machine per folio FA108	MDW	05.11.05	36
4	QC	Inspect Level 2	SD	05.11.05	36
5	QC	Inspect Level 8	SG	05.11.11	36
6	METAL	Deburr	SD	06/11/17	36
7	METAL	Bend per Dwg D2741	SB	05/11/21	36
8	QC	Inspect Level 5	2	05.11.25	36
9	PURCHASING	Issue P/O: 00000218 Harden material as per Dwg D2741 Min. Ultimate Tensile Strength = 152 ksi (34-40 HRC) Min. Yield Tensile Strength = 141 ksi Test report or Certification required	SP	05/12/05	36
10	RECEIVING	Receive and Inspect for transit damage Ensure Test report or Certification attached	10/12/20		36
11	QC	Inspect Level 5	2	05.12.21	36
12	FINISHING	Powder Coat White (Ref. 4.3.5.2) per QSI 005 4.3	11	06.01.04	14
13	QC	Inspect Level 3	CD	06/01/04	14
14	STORES	Identify and stock	103	06/01/04	14
15	EXPEDITING	Close W/O Cost / part	545 06/01/06 (14)	Q	06/01/06 14

Rev	Date	Change	Revised By	Approved
A	98.09.10	New Issue	DS/CP	
B	99.03.22	Material hardened after counterbore	DM	
C	00.11.01	Removed P/O for Powder Coat – in house process	EC	
D	00.11.15	Removed P/O turning - in house process	EC	

RELEASED

EE 00.11.20

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector
		Please Remove 2.000" D.m. from D.m. sheet. cannot measure.							

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector	
			Initial Design Mgr	Action Description Design Mgr	Sign & Date				
05.11.04	3	THICKNESS OF SOME PIECES VARY, FROM ABOUT 0.406" IN CENTER TO 0.347" AT TIP	CP	PARTS OK		2 05.11.04	4 05.11.04 Per QSI 092	2 05.11.04	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: Date: 06/11/04

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

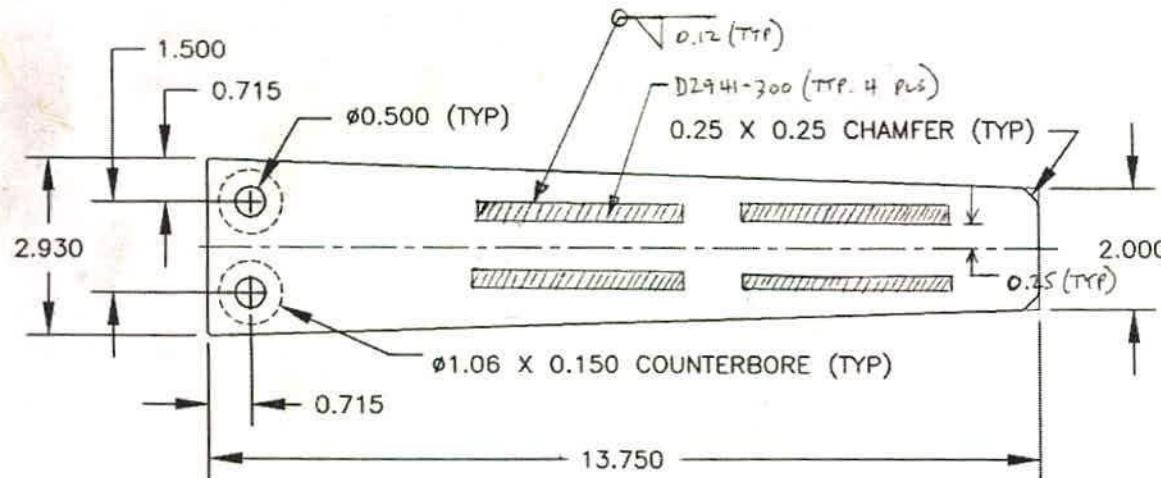
DART AEROSPACE LTD	Work Order:	24595
Description: Blade	Part Number:	D2741
Inspection Dwg: D2741	Rev: B2	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

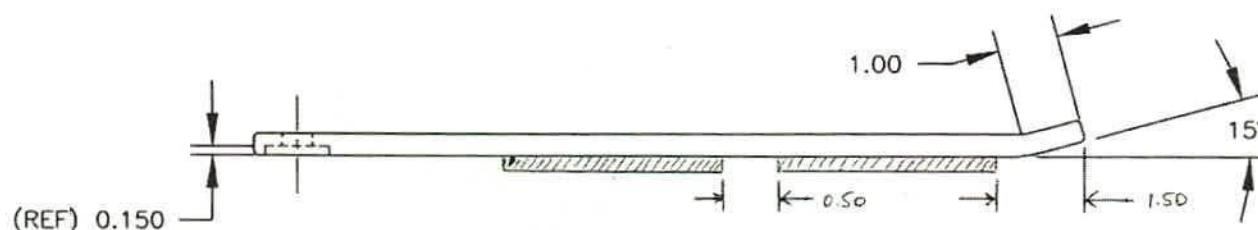
X First Article Prototype

Measured by: <u>E.P.</u>	Audited by: <u>J.L.</u>	Prototype Approval: <u>N/A</u>
Date: <u>05.11.03</u>	Date: <u>05.11.03</u>	Date: <u>05.11.03</u>

Rev	Date	Change	Revised by	Approved
A	03.12.22	New Issue	KJ/RF	RF



FLAT PATTERN



BEND DETAIL

MATERIAL: AISI 4130 STEEL 0.375 THICK

MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)

MIN. YIELD TENSILE STRENGTH = 141 ksi

FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

BREAK ALL SHARP EDGES 0.030 TO 0.060

401.01.31 { TO MAKE D2741-041, WELD 2941-300 (4) AS SHOWN ABOVE. REMOVE POWDER
401.01.32 COAT FROM SURFACE OF D2941-300
TO MAKE D2741-043, WELD 7520 HARDCOAT ROD INSTEAD OF D2941-300

10-01-31 } TO MAKE D2741-041, WELD 2941-300 (4) AS SHOWN ABOVE. REMOVE POWDER
10-01-31 } COAT FROM SURFACE OF D2941-300

TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-360

WORK ORDER
NO. 24595

NOTICE TO THE PUBLIC
TO THE PERSONS
WHO ARE GOING
TO SELL, PURCHASE
OR EXCHANGE
ANY PROPERTY
IN THE TOWN OF
NEW YORK.

RELEASED
18.11.03 DS



DESIGN 111	DRAWN BY <i>JP</i>	DART AEROSPACE USA, INC.		
		FAIRCHILD INTERNATIONAL AIRPORT, WA	REV. B	
CHECKED <i>PF</i>	APPROVED <i>RE</i>	DRAWING NO. D2741	SHEET 1 OF 1	SCALE 1:3
DATE 98.09.01	TITLE BLADE			
A 98.04.16	NEW ISSUE			
B 98.09.01	CHANGE C'SINK TO C'BORE			
B1 01.01.31	R&D 2941-041 / -043 OPTIONS			
B2 01.02.25	RD Rockwell Harness			

Job Costing Report

Dart Aerospace Ltd.
HawkesburyOct 18, 2005
11:00 am

Work Order No : 0024595
 Project Name : D2741
 Project For : WK545
 Work Order Type : Main
 Main WO Number :
 House Part Number : D2741
 Description : Blade
 Manufactured : Yes
 Amount Req'd : 10
 Amount Done : 0
 Start Date : 10-18-05
 Est Finish Date : 11-12-05
 Act Finish Date :
 Drawings Reqd : No
 Ok for Approval :
 Approval Rec'd : \$0 Posted to Finished Goods

Department Code:
 Burden Flags : NNNNNNN
 WO Status : Open
 Invoice State : Not Invoiced
 Invoice Date :
 Invoice Number :
 Invoice Amount : 0.00

Order Entry No :
 OE Value : 0.00

Est Mark Up : 0.000%
 Actual Mark Up : 0.000%

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
=====		=====	=====		
Burden :	0.00	0.00	0.00		
=====		=====	=====		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/ (Loss) :	0.00	0.00

Chris Provencal

From: David Shepherd [davids@dartaero.com]
Sent: November 3, 2005 5:25 PM
To: Chris Provencal
Subject: Re: blade fitting

Chris,

Because this part is thin at the end where the moments are low, I think it is an acceptable deviation.

David

----- Original Message -----

From: "Chris Provencal" <cprovencal@dartaero.com>
To: <davids@dartaero.com>
Sent: Thursday, November 03, 2005 8:40 AM
Subject: blade fitting

>
> Dave,
>
> D2741 blade for the 350 skidtube. The thickness should be 0.375". The
> thickness of one is kind of like a banana: 0.375" at holes, 0.400" at
> center, and 0.347" at the end.
>
>
> Sincerely,
> Chris Provencal
> DART Aerospace Ltd.
> Email...cprovencal@dartaero.com
> Phone...613-632-3336
> Fax.....613-632-4443
>
>



VAC AERO
INTERNATIONAL INC.

PACKING SLIP

OAK 70831-1

HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL: (905) 827-4171 FAX: (905) 827-7489

QUEBEC DIVISION
7450 RUE VÉRITÉ STREET, ST. LAURENT, QUÉBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

GST No.: R105468102

12/16/2005

MM / DD / YYYY

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1DAR01

BILL TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

SHIP TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

K6A 1K7

K6A 1K7

DATE SHIPPED	SHIP VIA	F.O.B.
12/16/2005		ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
0218		COD

LN	PART NO	DESCRIPTION	UOM	QTY ORDERED	QTY SHIPPED	B/O QTY
01	D2741	BLADE ✓ Process Specifications: Procedure: 4161 HARDENED PER DWG. D2741 TO 152 KSI MINIMUM HRC 34-40 MATERIAL: 4130	EA	36	36	0
02	mc	MINIMUM CHARGE 130 lbs @ \$2.20/lb		1	1	0

No claims for shortage in weight or count will be entertained, unless presented within 5 working days after receipt of materials by customer.



VACUUM BRAZING · HEAT TREATING · SPECIAL PROCESSING · FURNACE EQUIPMENT





HEAD OFFICE
371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL: (905) 827-4171 FAX: (905) 827-7489

2009 WYECROFT ROAD, UNIT B
OAKVILLE, ONTARIO
CANADA L6I 6J4
TEL: (905) 827-7377 FAX: (905) 827-1380

QUEBEC DIVISION
7450 RUE VÉRITÉ STREET, ST. LAURENT, QUÉBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

OAK 70831-1

12/16/2005

MM / DD / YYYY

PAGE : 1

1DAR01
TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

SHIP TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

K6A 1K7

K6A 1K7

DATE SHIPPED	SHIP VIA	F.O.B.
12/16/2005		ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
0218		COD

PART No.	DESCRIPTION	UOM	QTY ORD	QTY SHPD	TEST RESULTS	
					TEST 1	TEST 2
D2741	BLADE	EA	36	36		
	Process Specifications: HARDEDEN PER DWG. D2741 TO 152 KSI MINIMUM HRC 34-40 MATERIAL: 4130				36 PCS	37/38 HRC



V.A.I.O.
TH.
25
Q.C.

J 05-12-21

I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant thereto in accordance with the conditions of the contract / or purchase order.

ON BEHALF OF VAC AERO INTERNATIONAL INC.

Janet Freeman
Authorized Q.C. Inspector

V.A.I.O.
TH.
25
Q.C.



VACUUM BRAZING - HEAT TREATING - SPECIAL PROCESSING - FURNACE EQUIPMENT
TURBINE COMPONENT OVERHAUL - PLASMA AND OTHER COATINGS



HEAT
TREATING